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No. V.

TRUSS FOR RUPTURES.

The Thanks of the Society were voted to Mr. T. FORSTER, for his improved Truss for Ruptures, one of which has been placed in the Society's Repository.

MR. FORSTER's improvement in the common rupture truss is the insertion of a spiral spring, acting by compression, at the base of the strap, whereby the instrument adapts itself to the varying diameter of the part round which it is applied, and thus preserves an equal pressure on the pad.

It has been applied with signal advantage to persons in the habit of raising great weights, such as millers' men, to whom the common truss soon ceases to afford any support.

No. VI.

SPRING-BAR FOR A STIRRUP.

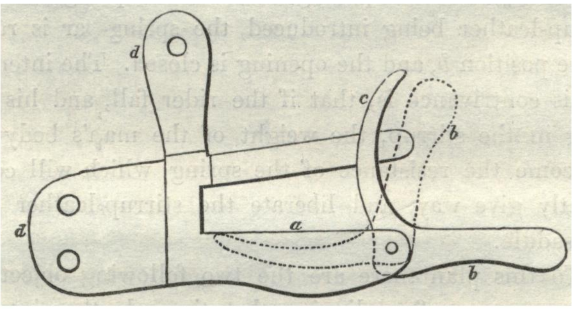
The SILVER ISIS MEDAL was presented to Mr. J. LAURIE, Saddler, Oxford Street, for his Spring-Bar for a Stirrup, one of which has been placed in the Society's Repository.

IN general, the stirrup-leather is attached to the saddle by means of a metallic loop, through which the leather is passed. If the rider happens to be thrown, and his feet hang in the stirrup-iron, he is necessarily dragged along by the horse with his head downwards, and consequently beaten against the inequalities of the ground. Very serious and even fatal accidents from this cause are by no means unfrequent.

In order to prevent this occurrence, the stirrup-leather is sometimes placed in a horizontal aperture in a piece of steel fixed to the saddle-tree, the opening of which, after the stirrup-leather has been slipped in, is closed by raising a spring catch or bar fastened to the lower jaw of the opening. This would be represented in the annexed figure if the piece *c* were omitted: *d d* are holes by means of which it is screwed or rivetted to the saddle-tree; *a* is the lower jaw of the opening, and *b* is the spring-bar. The stirrup-leather being introduced, the spring-bar is raised to the position *b*, and the opening is closed. The intention of this contrivance is, that if the rider fall, and his foot hang in the stirrup, the weight of the man's body will overcome the resistance of the spring, which will consequently give way, and liberate the stirrup-leather from the saddle.

To this plan there are the two following objections. If the groom, after slipping the stirrup-leather into the aperture, should forget to close it by raising the spring-bar, the stirrup will come off without notice, and the rider will probably lose his seat by the shock. If the rider should be thrown, and his foot hang; as the stirrup-leather presses on the spring-bar nearly at right angles, it is by no means certain that the spring would give way—at least immediately, and therefore the rider might be dragged several yards before the stirrup-leather got free from the saddle.

It has been Mr. Laurie's aim to avoid both these objections, which he does in the following way: The spring-bar, instead of being one straight piece, is in the form of a very open V, *b c* in the figure, and turns on a pivot inserted at the angle; it is therefore impossible to put the stirrup-leather into its aperture without at the same time bending down the arm *c* and raising the arm *b*, thus bringing them into the position shewn by the dotted lines, and effectually closing the opening. The arm *c* is curved so that, on the rider falling, the stirrup-leather is pressed outwards, sliding up the curved arm, and thus is made to press in the most favourable position on the straight arm *b*, which immediately, by making a half-turn on the pivot, releases the stirrup-leather.



CORRIGENDA IN FIRST PART OF VOL. L.

Page 11, 5 *lines from bottom*, *for* height, and place the connecting bar *g*, *read* height and place, the connecting bar *g*.
13, *line* 2, *for* ; then unclamp *read* , first unclamping.
14, 5 and 8, *for b read l.*
— 16, *for* lie *read* lies the bar.
26, 8, *after* grs. *add* of morphia.
33, 16, *dele* working.
39, 3, *for* latter *read* former.
— 10, *after* to *add* air and.
53, 8, 11, 27, 31, *for* bar or bars *read* arm or arms.
— 14, *for* 2 *read* 1.
55, 21, *dele* subsequently.
57, 14, *dele* and.
58, 3 *from bottom, for c c,* which is a front, *read* which is a front view, *c c.*
59, 5 *from bottom*, *dele* thrown back and, *and insert the same in the next following line*, *after* compartment.
63, 5, *for* covered *read* high-pressure.
69, 5 *from bottom*, *for* right angles *read* the angle.
84, 9, *after* horns *insert e*.
86, 12 *from bottom*, *dele* (as in figure 15).
90, 1 *and* 2, *omit* alternate.
— 6, *omit* half the planks retain their original thickness, and.
— 9, *omit* half.
91, 6 *from bottom*, *after* separate *add* in perspective.
—, *last line*, *after* Fig. 1 *add* the two other arms of this knee are horizontal, and at right angles to each other, one of them being parallel to the side of the ship, and the other perpendicular to it.
99, *last line*, *for* 1 *read* 2.
100, *line* 1, *for* 2 *read* 1.
108, 6 *from bottom*, *read the first part of this sentence as follows:* A straight bar projects from the hinder part of the plate *f*, and to this is attached a crank *g* in such a position that the end of its lower arm shall move vertically whenever the bar attached to *f* is moved horizontally.
109, 4, *for* ring, *twice repeated*, *read* swivel.
110, 23, *for the sentence* the weight *to* end of *g*, *substitute* the weight *l* on the spindle *i* balances the spiral *m*, the weight *o* on the crank balances the copper plate and horizontal bar, and another weight at the right hand end of the bar *g* (not shewn in the engraving), balances the weight of the wire.
144, 4, *after* entire *add* machine.
155, 11 *from bottom*, *for* shave *read* have.